IN THE CLAIMS

Claims 1-9 (Cancelled).

10. (Currently Amended) A solid-electrolyte secondary battery comprising:

(a) a positive electrode;

(b) a negative electrode;

(c) a solid electrolyte comprising a matrix polymer comprising a fluorocarbon polymer having a weight-average molecular weight of greater than ~~600,000~~550,000;

(d) wherein the matrix polymer further comprises a second fluorocarbon polymer having a weight-average molecular weight of greater than 300,000 and less than 550,000;

(e) wherein the matrix polymer comprises 30 percent or more by weight of the fluorocarbon polymer having a weight-average molecular weight of greater than ~~600,000, and wherein the matrix polymer is mixed with a mixture of (i) an electrolyte salt, (ii) a solvent, and (iii) a plasticizer, wherein the concentration of the electrolyte salt is 0.5 to 2.0 mols/liter in the plasticizer~~550,000;

(f) wherein the positive electrode has a face which is directed towards the negative electrode and the solid-electrolyte layer is formed on the face of the positive electrode and impregnates into the face a solution in which the solid electrolyte is dissolved; and

(g) wherein the negative electrode has a face directed toward the positive electrode and the solid-electrolyte layer is formed on the face and impregnates into the face a solution in which the solid electrolyte is dissolved.

Claims 11-12 (Cancelled).

13. (Currently Amended) The solid-electrolyte secondary batter of claim 10, wherein the fluorocarbon polymer is one of a polyvinylidene fluoride ~~or~~ and a polyvinylidene fluoride/hexafluoropropylene copolymer.

14. (Previously Presented) The solid-electrolyte secondary battery of Claim 10 wherein at least one of the positive and negative electrodes comprises a binder comprising the matrix polymer of the solid electrolyte.

15. (Previously Presented) The solid-electrolyte secondary battery of Claim 10 wherein the negative electrode comprises a material which is capable of intercalating or deintercalating a lithium ion.

16. (Previously Presented) The solid-electrolyte secondary battery of Claim 15 wherein the material which is capable of intercalating or deintercalating a lithium ion comprises a carbon material.

17. (Previously Presented) The solid-electrolyte secondary battery of Claim 10, wherein the positive electrode comprises a composite oxide of lithium and a transition metal.

Claims 18-19 (Cancelled).

20. (New) The solid-electrolyte secondary battery of Claim 10, wherein the solid electrolyte comprises a fluorocarbon polymer having a weight-average molecular weight of 1,000,000 or more.

21. (New) The solid-electrolyte secondary battery of Claim 10, wherein the solid electrolyte comprises a fluorocarbon polymer having a weight-average molecular weight of between 1,000,000 and 3,000,000.

22. (New) A battery comprising:
a positive electrode;

a negative electrode; and

a solid electrolyte provided between the positive electrode and the negative electrode, the solid electrolyte comprising a fluorocarbon polymer having a weight-average molecular weight of greater than 550,000.

23. (New) The battery of claim 22, wherein the solid electrolyte further comprises a second fluorocarbon polymer having a weight-average molecular weight of greater than 300,000 and less than 550,000.

24. (New) The battery of claim 23, wherein the solid electrolyte comprises 30 percent or more by weight of the fluorocarbon polymer having a weight-average molecular weight of greater than 550,000.

25. (New) The battery of claim 22, wherein the positive electrode has a face which is directed towards the negative electrode and the solid-electrolyte layer is formed on the face of the positive electrode and impregnates into the face a solution in which the solid electrolyte is dissolved.

26. (New) The battery of claim 22, wherein the negative electrode has a face directed toward the positive electrode and the solid-electrolyte layer is formed on the face and impregnates into the face a solution in which the solid electrolyte is dissolved.

27. (New) The solid-electrolyte secondary battery of Claim 22, wherein the solid electrolyte comprises a fluorocarbon polymer having a weight-average molecular weight of 1,000,000 or more.

28. (New) The solid-electrolyte secondary battery of Claim 22, wherein the solid electrolyte comprises a fluorocarbon polymer having a weight-average molecular weight of between 1,000,000 and 3,000,000.